

ABSTRACT

5 The present invention provides methods of using metal nanoparticles 0.5 to 400
nm in diameter to enhance the dose and effectiveness of x-rays or of other kinds of
radiation in therapeutic regimes of ablating a target tissue, such as tumor. The metal
nanoparticles can be administered intravenously, intra-arterially, or locally to achieve
specific loading in and around the target tissue. The metal nanoparticles can also be
linked to chemical and/or biochemical moieties which bind specifically to the target
tissue. The enhanced radiation methods can also be applied to ablate unwanted tissues or
10 cells *ex vivo*.

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